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United States Patent [19]**Platzker et al.**[11] **Patent Number:** **5,528,263**[45] **Date of Patent:** **Jun. 18, 1996**[54] **INTERACTIVE PROJECTED VIDEO IMAGE DISPLAY SYSTEM**

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[58] Field of Search 345/145, 146, 345/156, 157, 173, 175, 179; 348/14, 18, 61, 552

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[57] **ABSTRACT**

An interactive projected image video display system which includes a computer for generating video images, a projection apparatus coupled to the video output port of the computer for projecting computer-generated video images onto a projection screen, and at least one video camera for visually recording the projected image. The computer includes a frame grabber board coupled to the video camera for capturing individual frames or series of frames from the video recording of projected image. The captured images are compared to the computer generated images to detect for the presence of recognizable features introduced onto the projected image by a user to instruct the computer to trigger a computer operation. The system can also simulate a mouse to be used with any off the shelf application that uses a regular mouse.

22 Claims, 5 Drawing Sheets